

## CLAIMS

1. A fan shutter, comprising:
  - a) a housing having one end attachable to a fan;
  - 5 b) said housing having an opposite end with one or more doors attached pivotably and centrally to said opposite end of said housing; and
  - c) said one or more doors biased to close said opposite end of said housing.
- 10 2. The fan shutter of claim 1 wherein said one or more doors are attached to a center post by hinges at said opposite end of said housing.
- 15 3. The fan shutter of claim 1 wherein said one or more doors are biased to close by gravity by said opposite end of said housing being tilted from vertical.
4. The fan shutter of claim 1 wherein said one or more doors are biased to close by gravity by said housing being tilted downward while said opposite end of said housing remains vertical.
- 20 5. The fan shutter of claim 1 wherein said one or more doors are biased to close by the use of one or more counterweights.
- 25 6. The fan shutter of claim 1 wherein said one or more doors have hinges and are biased to close by the use of springs in said hinges.
7. The fan shutter of claim 1 wherein said housing is tubular.
- 30 8. The fan shutter of claim 7 wherein said opposite end of said housing has a bell mouth.
9. The fan shutter of claim 8 wherein said housing and said fan form a single unit.

10. The fan shutter of claim 1 wherein said opposite end of said housing has a bell mouth.
- 5 11. The fan shutter of claim 1 wherein said housing and said fan form a single unit.
12. A fan shutter, comprising:
- 10 a) a housing having one end attachable to a fan and an opposite end having one or more doors attached pivotably to a centerpost; and
- b) said one or more doors being vertically oriented, biased to close said opposite end of said housing when said fan is not operating, and
- 15 opening said opposite end of said housing when said fan is operating.
13. The fan shutter of claim 12 wherein said one or more doors are attached to said center post by hinges.
- 20 14. The fan shutter of claim 13 wherein said one or more doors are biased to close by gravity by said opposite end of said housing being tilted from vertical.
15. The fan shutter of claim 13 wherein said one or more doors are biased to close by gravity by said housing being tilted downward while said opposite end of
- 25 said housing remains vertical.
16. The fan shutter of claim 13 wherein said one or more doors are biased to close by the use of one or more counterweights.
- 30 17. The fan shutter of claim 12 wherein said one or more doors have hinges and are biased to close by the use of springs in said hinges.
18. A fan shutter, comprising:

- a) a tubular housing having one end attachable to a fan and an opposite end having a bellmouth and one or more doors attached pivotably and centrally to said opposite end; and
  - 5 b) said one or more doors being vertically oriented, biased to close said opposite end of said housing when said fan is not operating, and opening said opposite end of said housing when said fan is operating.
19. The fan shutter of claim 18 wherein said one or more doors are biased to close  
10 by gravity by said opposite end of said housing being tilted from vertical.
20. The fan shutter of claim 18 wherein said one or more doors are biased to close by gravity by said housing being tilted downward while said opposite end of said housing remains vertical.
- 15 21. The fan shutter of claim 18 wherein said one or more doors are biased to close by the use of one or more counterweights.
22. The fan shutter of claim 18 wherein said one or more doors have hinges and  
20 are biased to close by the use of springs in said hinges.
23. The fan shutter of claim 18 wherein said housing and said fan form a single unit.